PROGRAM IN BRIEF

INTEGRATING GENOMICS INTO CHRONIC DISEASE PREVENTION PROGRAMS

WHAT IS THE PUBLIC HEALTH ISSUE?

The Human Genome Project has led to better understanding of the genetic contribution to common chronic conditions and appreciation of the role of genomics in public health. However, the translation of research findings into information and tools for preventive medicine and public health lags far behind. Public health professionals lack the support and training they need to understand and apply advances in genomics and their relevance to disease prevention and health promotion.

WHAT HAS CDC ACCOMPLISHED?

- In collaboration with the Association of Schools of Public Health, CDC established the first "Centers for Genomics and Public Health" in 2001. These centers, located in Schools of Public Health at the University of Michigan, the University of North Carolina, and the University of Washington, each became hubs of expertise that built on and complemented existing university programs and created links with state and local health departments. The centers have been recognized as national resources in public health genomics that have contributed to the knowledge base; provided technical assistance to local, state, and regional public health organizations; and developed and delivered training to the public health workforce. In collaboration with CDC, these centers completed two Web-based training programs for public health professionals. The first is a 45-minute introductory presentation called *Genomics for Public Health Practitioners* that describes the application of genomics to public health, dispels myths about genomics, and identifies challenges in public health genomics. A more in-depth series, *Six Weeks to Genomics Awareness,* includes six presentations designed to help public health professionals understand how genomic advances are relevant to public health. In 2005, two of the centers (Michigan and Washington) were awarded funding to continue their work in public health genomics.

- In July 2003, CDC established cooperative agreements with state health departments in Michigan, Minnesota, Oregon, and Utah to assist in developing and expanding their capacity to integrate genomic tools and knowledge into chronic disease programs for improved health outcomes. These states have demonstrated that genomics can be successfully incorporated into chronic disease prevention programs through their progress in establishing infrastructure, building partnerships, educating the public health workforce, assessing the integration of genomics into population-based surveillance, and applying family history as a screening tool to identify high-risk populations in order to more effectively target prevention messages. The progress made by these states serves as a model for other local, state, and regional health departments as they begin to incorporate genomics into public health programs.

WHAT ARE THE NEXT STEPS?

These CDC-funded centers and states, representing a successful model for the integration of genomics into chronic disease prevention programs, are poised to extend CDC's reach and capacity for translating research into public health impact during the next fiscal year.

For additional information on this or other CDC programs, visit www.cdc.gov/genomics *March 2006*